Bulletin of the TEXAS ORNITHOLOGICAL SOCIETY

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New Members ..... inside back cover

The guest editorial in this issue is by Roland Wauer, Chief Naturalist at Big Bend National Park. "Ro" also took the photograph (p. 5) of the female Colima Warbler which he banded in June, 1967, and which he found the following year nesting about a half mile from the first nest. This nest contained three young which he banded. In the United States Colima Warblers nest only in the Chisos Mountains in Big Bend National Park.

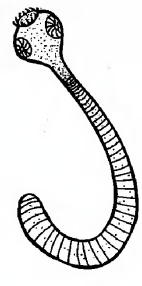
Ned Fritz, who wrote the article on Mexico's Northernmost Cloud Forest, and Dr. Robert Mitchell, who contributed the accompanying photographs (pages 6 and 7) have both spent considerable time in Mexico. Ned has studied the country's birds, and Bob, who teaches invertebrate zoology and biospeleology at Texas Tech, has explored and studied the fauna of many of the caves in Mexico.

Pat Ridge, of Houston, took the photograph (opposite page) of Ramona Ridge holding a yellow rail. (See page 10). This, and his photographs on page 10 and 11, accompany his article on the rail count at Anahuac.

The photographs on page 8 illustrate two of the ways ornithologists study Texas birds. Dr. Richard Albert demonstrates how to prepare a scientific study skin of a Mississippi Kite (top photograph); and Franklin Henze, a Texas Game Warden, inspects a nesting box for Black-bellied Tree Ducks (bottom of page). He was photographed by Eric Bolen.

The Roseate Spoonbill (page 12) and the Tern (back cover) were photographed by John Tveten, who is shown photographing a Yellow Rail on page 10. The egret on the front cover is also one of his photographs.

The Bulletin and Newsletter are each issued four times a year and mailed to all members of the Texas Ornithological Society not in arrears for dues. Annual dues for active members is $3.00, for sustaining members, $5.00. Inquiries regarding membership should be addressed to Mr. W. Russell Weil, Treasurer, 3429 Lovers Lane, Dallas, Texas 75225. Individual issues of the Bulletin may be purchased for fifty cents a copy. Original articles, reports and news items should be sent to Dr. Michael Kent Rylander, Editor, Department of Biology, Texas Technological College, Lubbock, Texas 79409. Conservation items should be submitted to Mr. Edward Fritz, Conservation Editor, 909 Reliance Life Building, Dallas, Texas 75201. The art director for the Bulletin is Mr. Dick Cheatham. The Texas Ornithological Society was organized in 1953 and membership is open to anyone having an interest in Texas birds, their study and conservation. The president of the TOS is Dr. William Graber, Beaumont; the vice-president is Mr. Charles Crabtree, Fort Worth; and the Secretary is Mrs. Cleve Bachman, Beaumont.



STANLEY D. CASTO:

BEAUTY IS ONLY FEATHER DEEP

A survey of the common animal parasites of birds

It is seldom realized by the weekend birder or professional ornithologist that the fancy feather covering of their favorite avian species may conceal a large repertoire of somewhat sinister-looking creatures which at times may make the life of the bird something less than a pleasure. Ordinarily the bird would simply fly away from its enemies, but these microscopic predators cling firmly or lodge in such inaccessible regions of the body that they cannot successfully be removed or left behind.

Examination of this 'aviating zoological garden' will generally reveal a number of external parasites such as feather lice, mites, ticks, and fleas. Not only have these forms exploited all external regions of the bird's body, but have also maneuvered their way into all cracks, crannies, and openings which lead to the inside.

Feather lice are commonly found under the wings or on top of the bird's head. However, certain specialized species may also be found inside the shaft of the flight feathers or the throat pouches of pelicans and cormorants. In these protected locations they lay their eggs, grow to maturity, and feed upon tissue juices, epidermal debris and feathers. Many species of feather lice are found only on one species of bird and it is said that an expert can identify the bird simply by looking at its lice. Feather lice are ordinarily transferred from one bird to another through direct body contact such as occurs during gregarious roosting, copulation, or attendance of the parents to the nestlings.

Under normal circumstances feather lice apparently present no mortal danger or discomfort to the bird. However, when infestation is abnormally heavy in sick, captive, or young birds the effect may be serious. Feather shafts may be denuded and loss of blood may result by rupture of the skin vessels during feeding of the lice. Excessive scratching by the bird in an attempt to remove the irritating pests may only aggravate the situation. An East African cormorant from which over 7,000 lice were removed is said to hold the world's record for infestation by this particular group of parasites.

Mites are well known parasites of birds. The "redmite" or "chicken mite" is a common parasite of chickens, pigeons, sparrows, and other birds. Roost mites may become abundant enough to cause severe anemia and even death to young birds. After feeding they commonly leave the bird and hide in crevices near the roost area. Other types such as the nasal, lung, quill, and itch mites remain with the bird as permanent inhabitants. In some cases lung mites may invade the air sacs and bone cavities in such numbers that the victims apparently die of suffocation. Itch mites live completely under the skin and cause scaly leg and de-pluming mange in poultry. Tumors also occasionally form in the feather follicles of passerine birds due to the presence of certain species of mites. Others have found their way into the interior of the quills where their bodies have become elongated and greatly modified in shape to suit their long, narrow habitat.

Stanley Casto is a doctoral student in the Department of Biology at Texas Tech. He has studied at Texas A&I at Kingsville and has taught biology at Southwest Texas State College at San Marcos. He has published articles on avian parasites and is currently studying the physiology of olfaction in ducks. The illustrations which accompany Stan's article (pages 2, 3 and 4) were prepared by his wife, Suzan, and represent generalized types of parasites found on birds.

Closely related to the mites are the ticks. Some members of this group live and breed in the nest or roost area of the bird whereas others depend for food on a chance meeting with the host as it wanders about the fields and forest. Ticks commonly locate themselves on the bird's head, attaching near the eye or angle of the bill where they cannot be pecked off. The saliva of ticks can be highly toxic and blindness sometimes occurs following attachment in the region of the eye. Ticks may often spread disease from one flock of birds to another. In Texas a certain tick which has been recorded from the Roadrunner is known to be the carrier of the causative agents of fowl relapsing fever, "range paralysis," and fowl piroplasmosis.

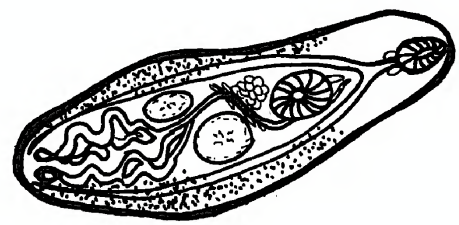
Fleas are generally difficult to find since they commonly leave the bird after it has been shot or captured. Nests, however, are quite productive and several hundred fleas may be recovered from each one examined. The effect of this large number of parasites on wild nestlings is undetermined. However, it is known that, in the case of the hen stick-tight flea the effect can be very serious. The birds lose weight, egg laying is reduced, and an occasional death may result from heavy infestations. In addition to infesting poultry the stick-tight flea attacks dogs, cats, rabbits, rats, other mammals and birds, and occasionally children. The stick-tight flea is susceptible to plague and since it infests both birds and rodents, it may carry infection from wild to domestic rodents and when attached to birds such as vultures, hawks, or pheasants carry this infection to distant places.

Birds have many defenses against external parasites. Restriction of these parasites to the inaccessible regions of the body indicates that stratching and preening are effective measures which keep them from completely over-running the bird. External parasites are occasionally found in dust baths indicating that dusting may possibly aid in the removal of the more sluggish forms. The behavioral oddity of "anting" during which the bird places ants in its feathers or spread-eagles in an ant's den allowing them to crawl over its body has also been suggested as a means of parasite defense. While these mechanisms may contribute to the control of external parasites they are totally ineffective against the protozoan parasites, tapeworms, roundworms, flukes, and spiny-headed worms which inhabit the internal regions of the body.

The parasitic protozoa of birds are small, microscopic animals which live either in the tissues or blood of their hosts. One of the most serious of the group lives in the tissues of the digestive tract of birds and causes coccidial disease. Occurring in the blood are several species of protozoa closely related to those which cause human malaria and sleeping sickness. It has been demonstrated that certain species of bird malaria may be transmitted by either hippoboscid or black flies which crawl among the feathers to take a blood meal. Although high mortality due to malaria has been reported in turkeys, grouse, and ducks very little is known of its effect on other species of wild birds. Further study will possibly reveal that protozoan infections are widespread and of some consequence in the regulation of wild populations.

Tapeworms are long, slender, segmented worms which attach by means of various types of suckers and hooks to the lining of the digestive tract of birds and other vertebrates. They have no means of digesting their own food and therefore must absorb all of their nutrients from the fluid material in the gut of the host. Although it is commonly thought that they starve their host by robbing it of food, this is probably not true except in cases of extremely heavy infection. Under normal circumstances infection by tapeworms apparently does not seriously hinder the host. Almost every species of bird is parasitized by tapeworms and it is usually found that related birds have characteristic species. For example, grebes, swifts and swallows, rheas and ostriches, and swans all have their own distinctive tapeworm parasites.

Roundworms, or nematodes, are probably the most important group of worms parasitizing birds and exceed all the others in their numbers and variety. Over fifty species have been recorded from the domestic fowl alone. One species, the gapeworm, lives in the windpipe and lungs of birds and may eventually cause death. It has been recorded not only from chickens but from such wild birds as the robin, owl, jay, jackdaw, kestrel, house sparrow, sandpiper, and several others. It is difficult to diagnose roundworm infections in wild birds since they cannot recite their symptoms. However, if they could speak they would probably mention the same miseries as those expressed by their human admirers who also suffer from the attack of nematodes — heartburn, dizziness, insomnia, optical illusions, general nervousness, abdominal discomfort, palpitations of the heart, and loss of vitality. Since over 10,000 roundworms have been found in the intestine of a single grouse, it is logical to assume that in cases of heavy infection they may have a very adverse effect on the bird.



Flukes are flat, colorless, leaf-shaped worms which are generally only a few millimeters in length. Adult flukes may be found within almost any of the ducts, body cavities, or blood of the bird where they attach by means of two suckers found around the mouth and on the ventral surface of the body. In these locations the worms feed on blood, lymph, tissue secretions, and possibly on cells of the membrane to which they attach. Immature stages of bird flukes are commonly found first in snails and then in fish upon which the bird feeds. In the case of the oviduct fluke, snails and dragonflies serve as intermediate hosts. In the domestic fowl and several wild species the presence of the adult oviduct fluke in the reproductive tract results in a reduction of egg laying, thereby serving possibly as a governing factor in population expansion. Occasionally the worms get caught up in the egg during development, providing an unwholesome eye-opening surprise for the unsuspecting cook. In the case of blood flukes which pass directly from the snail to the bird the immature parasites occasionally make the mistake of attempting penetration of human beings with whom they make contact in the water. Although they die shortly after entering the skin, their decomposing bodies produce a severe irritation known popularly as "swimmer's itch."

Spiny-headed worms are round, smooth, unsegmented worms found in the intestine of birds. Their most characteristic feature is a retractible head-like structure armed with a series of sharp hooks which serve as powerful organs of attachment. Although there are relatively few species of spiny-headed worms as compared with other types, they are found in a wide variety of birds ranging from penguins to eagles, and kingfishers to wood warblers. The effect of these living pincushions on the bird is undetermined. However, it can be easily imagined that the imbedded hooks cause severe irritation and bleeding from the intestinal lining, as well as providing a point of entry for the invasion of disease-causing microorganisms.

Although the parasites of economically important domestic birds in the United States are quite well known, the same cannot be said for those of their wild cousins. Collecting bird parasites is often a tedious, distasteful task which demands, in many cases, the sacrifice of the host for examination of the internal organs. Because of these unpleasant features ornithoparasitology has lagged considerably behind investigation into other areas of avian biology. This situation is not likely to be remedied in the near future. However, birders and professional ornithologists may contribute significantly through collection of parasites from nests and birds which are routinely captured and examined for banding and other study purposes. The parasites may then be sent to specialists for identification and study. The information derived from a long range cooperative program of this type may eventually result in a better understanding of avian diseases and thereby contribute to the better health and conservation of our feathered friends.

Suggested Readings:

(1) CHANDLER, A. C. and READ, C. P. 1961. *Introduction to Parasitology.* New York: John Wiley & Sons, 822 pp.

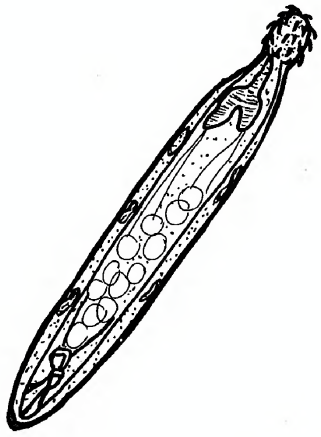
(2) CRAM, E. B. 1927. *Bird Parasites of the Nematode Suborders Strongylata, Ascaridata, and Spirurata.* U. S. Natl. Mus. Bull., 140: 465 pp.

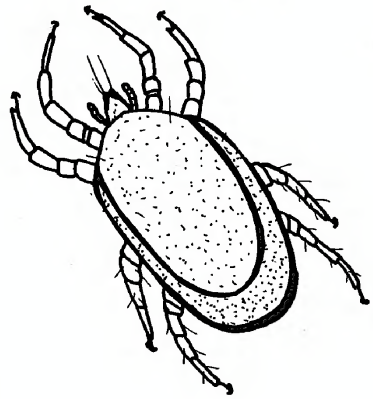
(3) HERMAN, CARLTON M. 1955. "Diseases of Birds," Chpt. 13. pp. 450-467 of *Recent Studies in Avian Biology.* Urbana; Univ. of Illinois Press.

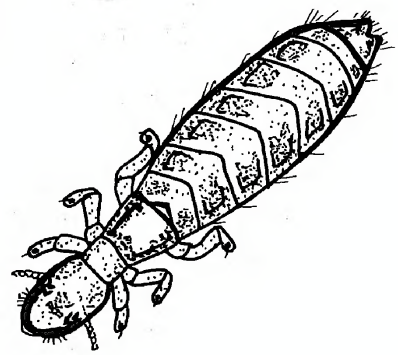
(4) NOBLE, E. R. and NOBLE, G. A. 1964. *Parasitology.* Philadelphia:Lea & Febriger, 724 pp.

(5) WELTY, J. C. 1963. *The Life of Birds.* New York: Alfred A. Knopf, 546 pp.

(6) ROTHSCHILD, M. and CLAY, T. 1957. *Fleas, Flukes and Cuckoos.* New York: Macmillan Company, 305 pp.

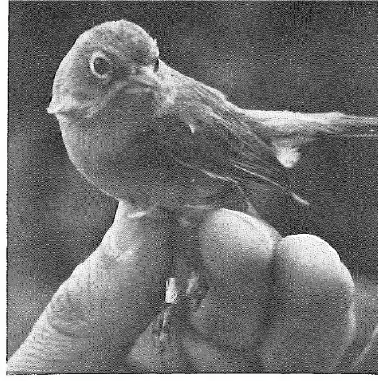






GUEST EDITORIAL:

by
ROLAND WAUER



NOTES FROM THE BIG BEND.....

It seems to me that during the last few months almost every time one listens to the radio, watches television, or picks up a magazine to read there is some kind of ominous warning about how man is lousing up his environment. Apparently, people are getting mighty concerned about the way we are fouling up the cities, rural areas, and even our countrysides. But all this jazz about smog, over-population, and pesticides must pertain to places in the east or along the west coast. West Texas is certainly as free from such humanized terror as anywhere in the world.

Take over-population as an example! Where else can one drive for a hundred miles or more and see hardly a soul; nothing but an occasional jackrabbit, yucca plants, and washes full of mesquite. Yet we are told that 25% of all the people who ever lived are alive today. The world's population is increasing by over 60 million a year. And that by 1986, 35% of all the people alive will be less than 15 years old; even today, China has more children under ten than the total all-age population of Russia. Of course, it's not that bad in the good old United States; we have a net gain of only one person every twelve seconds. That's only 5 per minute; 300 per hour; 7200 per day; 50,400 per week; and 2,628,000 a year.

And what about polution? That's a term that certainly is getting its share of publicity. What if there are 400 new chemicals on the market each year. Each is tested for direct health hazards. Everyone! There really isn't much known yet about what effects the breakdown chemicals have, except they have killed a few Robins and other animals. And now scientists say that they have found traces of pesticides in Antarctic penguins. The Antarctic is a long way from where pesticides are in use — further, even, than West Texas.

But one of the really disturbing comments that I read was someone's theory that by the end of this century we may have released enough carbon dioxide to raise the atmospheric temperature by two degrees centigrade. This is actually supposed to raise the world's temperatures enough to melt the ice caps which would eventually flood many of the world's major cities. Impossible! At least I hope so. Or we won't have an unsettled acre in West Texas.

And what about our great National Park — Big Bend? Will it remain the "last frontier"? It certainly wasn't the "last frontier" over Easter Week. It seemed like all of east Texas was trying to find a little piece of desert wilderness — somewhere away from today's cares. But only the rugged few, who were able to hike away from the centers of visitation, managed to have that opportunity.

After 400 years on this continent, are we really faced with a crisis which threatens our survival and happiness? Americans have a history of never moving unless confronted with a disaster or a major crisis. Maybe these signs of awareness that something is actually going wrong with our environment are real. It seems difficult to grasp that human beings must change their ways or accept the very real prospect of extinction.

The Gross National Product is America's Holy Grail. Statistics concerning auto output, steel production, heavy construction, barrels of oil, have become the indices of the American advance. But we have no environmental index, no census statistics to measure whether the country is more or less livable from year to year. We have only the soil under our feet and the desire to live in freedom. But what good is all that if we live in a sewer?

Surely we are wise enough to recognize that man needs more than the steel and concrete environment of urban civilization to fulfill his natural role here on earth. He must also have the sanctuary of unspoiled land, a place of solitude where he may turn his thoughts inward. He must have the opportunity to wonder at the miracle of creation. — *Big Bend National Park, Texas.*

Looming out of the clouds is a fat skeleton with ghostly arms, laden with plants. The skeleton is a 125 foot high chestnut oak. The plants along its arms are ferns hanging downward, epiphytes spiking outward, bromeliads thrusting upward, and vine-type cacti twine. In this ethereal matting dozens of birds await the mid-day burning-off of the mist.

Only the closest trees are visible this typical cloud-drenched morning in the Gomez-Farias cloud forest. At 3700 to 4500 feet above sea level, with no sounds audible, these trees reign over a lost key domain.

Finally the clouds split apart, permitting a hot tropical sunlight to penetrate between the two mountain ridges. The ghosts of morn merge into a dense tropical jungle. As if Philomel had just trumpeted the signal to arise, millions of birds of multiple species suddenly perforate the big-leaved forest, blue mockingbirds sitting and singing, olivacious and spot-crowned woodcreepers creeping along trunks and calling, hooded grosbeaks flitting from tree to tree and chattering, tufted flycatchers darting out from low limbs and seizing butterflies. Along the long, narrow valley between the two ridges, the ornate hawk-eagle soars and wheels and shoots-the-chute on his daily run, screaming like a lonely lost life in limbo.

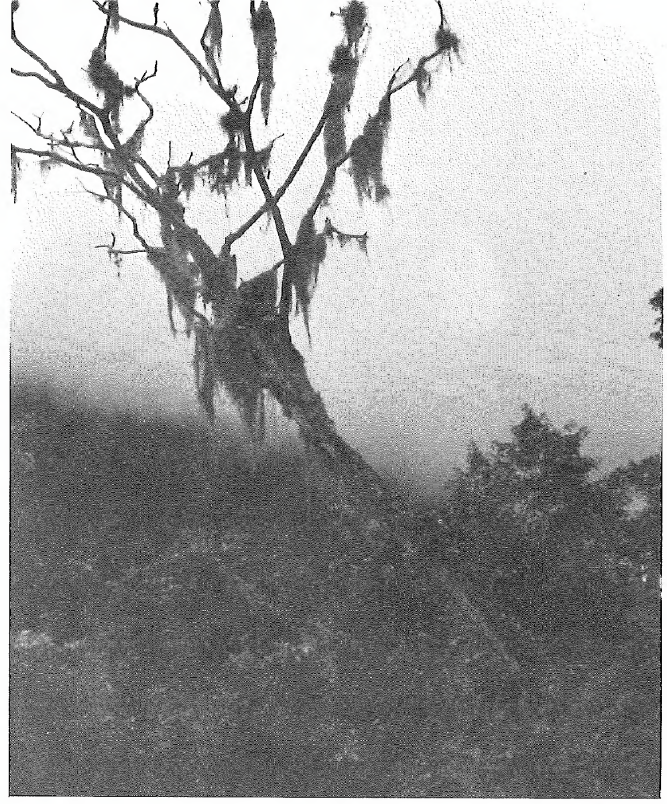
And commanding but velvety, as if blown from a long and ancient music-tube of aborigines, the double hoot of the mountain trogon floats from ridge to ridge.

Ferns and mosses stretch a deceiving carpet over the treacherous, boulder-strewn ground. Scaled ant-pittas and russet nightingale-thrushes run beneath this carpet like fish in the deep.

On the hills which jut out of this jungle, orchids and sotols abound. The jungle, itself, is a strange mixture of species from the Big Thicket of Texas and from the tropics around Vera Cruz. Big Thicket species include chestnut oak, sweet gum, magnolia grandiflora and redbud, interlaced with cross-vine and yellow jasmine. In one place, there are even beech trees. Tropical species include reticulated oak, mahogany and madronia.

The forest hangs high between the second and third ridges of the Sierra Madre Orientale. The third ridge ascends to 5,000 feet in elevation, the dry upper 500 feet of which comprise a pine forest. Only in that delicate balance of wet clouds, one mile wide and ten miles long, below the pine forest can the cloud forest evolve.

This is the northernmost cloud-forest of Mexico, situated about sixty miles southwest of Ciudad Victoria in Tamaulipas State, a portion of which must by all means be preserved.



But preservation will be difficult. An agrarian colony has already obtained legal rights to the central one-fourth of the cloud forest. Another ejido has just filed for title to a long swath into the northern one-third, and its members are clearing the jungle at a rapid clip. These ejidos, drawing from and contributing to the ever-swelling population of Mexico, are the big threat to this choice natural area.

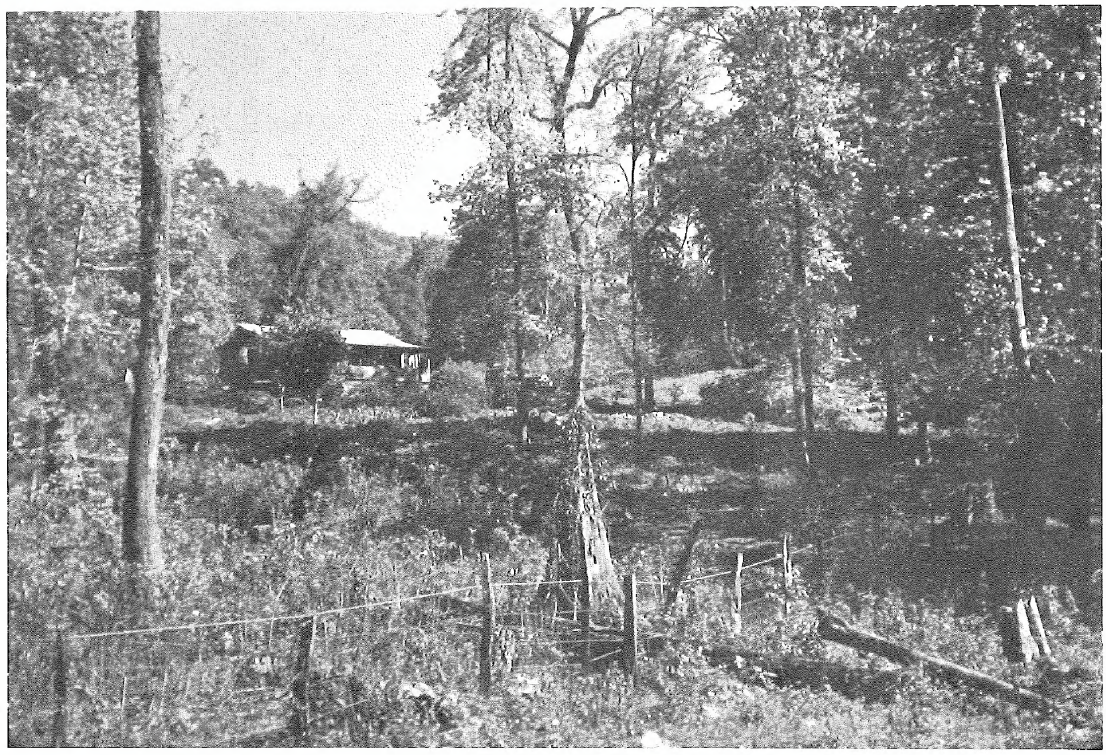
Although the only approach is a jeep road ascending eight miles from Gomez Farias, Mexicans walk into this newly-found heaven from as far away as Michoacan State. They clear the land, although this is a poor soil and a poor climate for agriculture. They cut more trees for shacks and firewood. They shoot the birds, including the great currasow and crested guan, which they have almost exterminated there, and the motmots and trogons. They use up the meager pools of standing water. Around their settlements their hackings and shoutings, and smoky fires ruin the solitude.

The only solution is for the Mexican government or a private agency to acquire title and to set aside and guard the remaining portion of the cloud forest as a natural area. Guarding such an area from encroaching, land-and-bird hungry masses requires permanent wardens. The Mexican government has such wardens at only one of its fifty-two so-called national parks. Unless this current administration has a drastic awakening, we must look only to private agencies for any help.

by NED FRITZ

photographs by ROBERT W. MITCHELL

MEXICO'S NORTHERNMOST



Texas Southmost State College, in Brownsville, owns 60 acres in the northern third of the cloud forest. The College has cleared this acreage of most of the jungle which once was the roosting place of the currasows. The College has built a cook-house, library and dormitories, and now is building an auditorium, all for a biological station which the students visit about four times a year. With the help of two custodians, the students raise bulbs and sell them to help defray expenses, utilizing ten or more of the 60 acres for horticulture. The College leases two cabins to a Brownsville family which hosts visiting biologists and helps to oversee the area.

The surrounding cloud forest is necessary for field trips. The College is considering buying up to 1600 acres of this land as a place where biological studies may continue to be conducted in the field. Otherwise, the ejidos will cut the trees and clear the plants.

The other possibility for preservation is the World Wildlife Fund, operating in conjunction with a Mexican organization, the Institute of Renewable Natural Resources, headed by Mexico's leading conservationist, Dr. Enrique Beltran.

The purchase price of 3200 acres of the cloud forest would probably run around twenty-thousand dollars. Since any tract over 1600 acres is subject to expropriation by ejidos, the 3200 acres would need to be divided between the College and the Institute.

In order to get a fund started while these institutions are still tooling up, anyone wishing to contribute to the preservation of the Gomez-Farias cloud forest may send a check to Mr. E. W. Mudge, Jr., Treasurer, The Nature Conservancy, Republic Bank Tower, Dallas, Texas, 75201.

CLOUD FOREST . . . . . .

TOS OFFICERS ELECTED

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Slater's Comments:

From Bill Slater's column, in the April 10 San Antonio Express, comes the following account:

"LAST WEEK WHEN I wrote about the big Freer Rattlesnake Roundup, I neglected mentioning perhaps the single most exciting event of the celebration.

"Would you believe that someone let a rattlesnake bite him on the arm and leg, on purpose, took no medication, and showed little ill effects?

"If you do, you were at the roundup or know Dr. Richard Albert of Alice, the man who performed this scary feat.

"IN FACT, DR. Albert let the snake, which had just been brought in from an area ranch, bite him two or three times on both leg and arm. And, at last word, the doctor is alive and well.

"Dr. Albert, a practicing herpetologist (one who studies snakes and other reptiles), has let poisonous snakes bite him before, having the good fortune to be immune to snake venom.

"But, even though he is blessed with the immunity, the venom does have some effect on him. Throughout the afternoon, Dr. Albert would periodically mark on his leg the point to which swelling and soreness had extended.

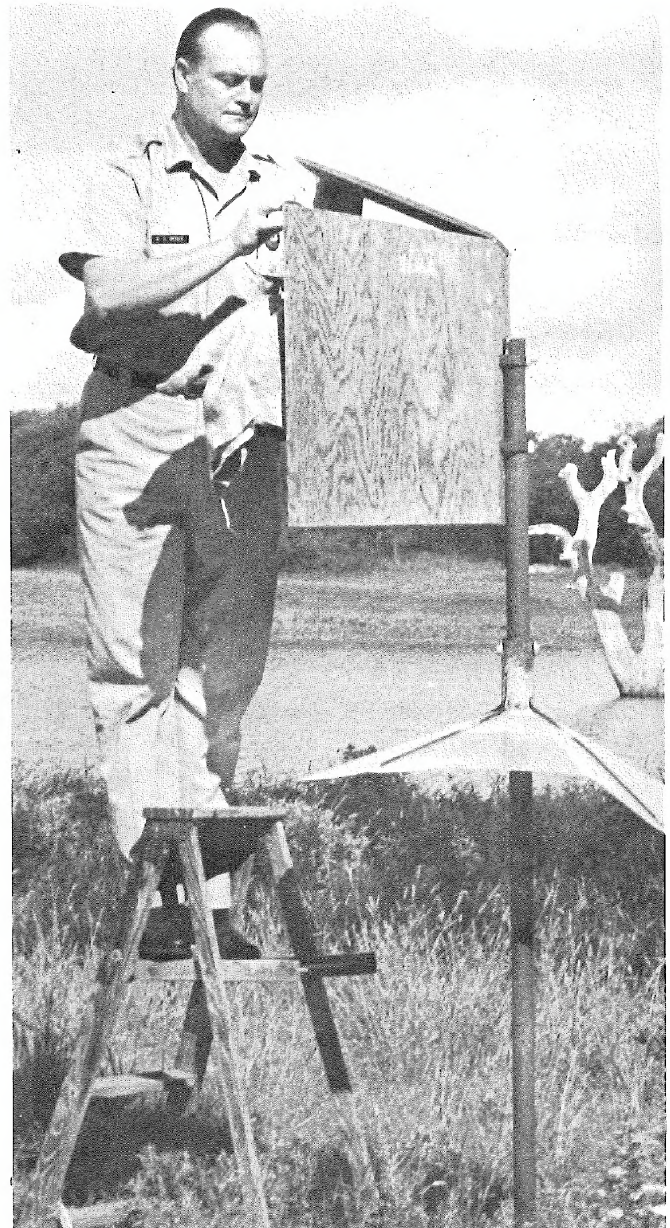
"And, after three or four hours, the swelling had traveled perhaps five or six inches. Asked about how he would feel on the following day, Dr. Albert replied, "Oh, okay, but my leg will be a little sore."

"ASKED WHY HE let the snake bite him, Dr. Albert replied, "To show you that a bit by a rattlesnake isn't the immediate life and death matter most people mistakenly believe. You should by no means take it lightly, but then again, if you keep your head, you've got more time than is commonly believed."

"By the way, some of you may remember that Dr. Albert was one of the Americans arrested in the Congo for alleged spying a couple of years ago.

"Actually, as the authorities there later believed, he was only pursuing his herpetology and Audubon Society interests.

"But, his cameras, binoculars and such made him, and a few others, targets for spy charges."



NED FRITZ:

T.O.S.
Conservation
Editor

Conservation Report

ANTI-DREDGING HOPE

The Texas Marine Sanctuary Bill, HB No. 745 by Rep. Dick Cory, would prohibit commercial activity, except line-fishing, shrimp harvesting and oil and gas production, within the waters of Espiritu Santo Bay, Contee Lake, Barroom Bay, Big Bayou, Saluria Bayou, Pringle Lake, Mustang Lake, Mesquite Bay, Sundown Bay, Ayres Bay, Bray Cove, Cedar Bayou and Cedar Reef. This bill would save the birds of Aransas National Wildlife Refuge and an Audubon Nature Sanctuary from the starving effects of shell-dredging.

There are other anti-dredging bills. The most comprehensive is HB 230 by Rep. Will Smith of Beaumont, which would place a five-year moratorium on shell-dredging in the bays and estuaries. But because of the long experience and great influence of Rep. Cory, his bill is considered to have the best chance of passage at this time. Therefore, we should concentrate upon it.

You can help get this bill out of Parks and Wildlife Committee by writing your state representative and asking him to urge the committee to approve it. If you don't know the name of your representative, write to one of the following members of the House Parks and Wildlife Committee:

Chairman: Jack McLoughlin (Fort Worth, Texas); Vice Chairman: A. C. "Bud" Atwood (Edinburg, Texas); Malouf Abraham (Canadian, Texas); George Baker (Fort Stockton, Texas); Frank Calhoun (Abilene, Texas); Tom Craddick (Midland, Texas); Russell Cummings (Houston, Texas); Temple Dickson (Sweetwater, Texas); Forrest A. Harding (San Angelo, Texas); Lamoine Holland (San Antonio, Texas); Tom Holmes (Granbury, Texas); Rufus Kilpatric (Beaumont, Texas); Glenn Kothmann (San Antonio, Texas); Dan Kubiak (Rockdale, Texas); James L. Lovell (Crockett, Texas); Hudson Moyer (Amarillo, Texas); Tom Niland (El Paso, Texas); James L. Slider (Naples, Texas); J. W. Stroud (Dallas, Texas); Lindon Williams (Galena Park, Texas); Billy Williamson (Tyler, Texas).

All of the above can be reached by writing to them at the House of Representatives, Capitol Station, Austin, Texas 78701.

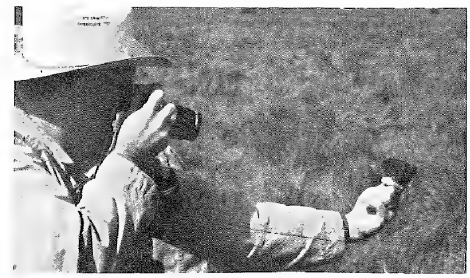
PARKS PROTECTION BILL MOVES

Backed by a goodly delegation from Fort Worth, Senator Don Kennard and Rep. David Finney of Fort Worth presented the Parks Protection bill to the Senate and House Parks and Wildlife Committee March 17. This bill would require public hearings before any government agency could use parks land for highways or other conflicting purposes, and would require exploration of alteratives. On March 24, the Senate passed SB 324. The House still has HB 368 in subcommittee. Secrets of the success of this bill have been the ardent effort of such Fort Worth conservationists as Mrs. Ben Bird, Mrs. G. W. Parker, Jr., and Mrs. Charles Crabtree, and the cooperation of Highway Commissioner Garrett Morris, who assisted in modifying the language of the bill so as to put a time limit on appeal from an adverse Highway Department decision. Then Mr. Morris obtained acceptance by key state agencies.—*(con't. on page 12)*

National Issues Platform

1. Institute comprehensive planning and environmental control for the best use of all natural resources.
2. Control the size of the human population so as to prevent exhaustion of natural resources.
3. Dedicate to public uses at least 100,000 acres of significant ecological areas and prime recreation land in the Big Thicket through federal, state and private action, including a Big Thicket National Riverways Program.
4. Establish a National Scenic and Wild Rivers System, to include the Rio Grande Canyons, Guadalupe River, and other Texas streams.
5. Empower the Department of the Interior to protect the bays and estuaries from damage scenically and biologically as well as navigationally.
6. Conduct a crash program of desalination as an alternative to dams and ditches for water supply.
7. Require use of the greenbelt concept of open undeveloped recreational areas in floodplains as an alternative to further massive flood control construction projects.
8. Set sound standards for measuring the feasibility of resource-damaging construction projects, including, (a) calculation of interest rates on the basis of actual cost to the economy, and (b) debiting for the subjective value of damaged natural resources.
9. Maintain an all-out program for elimination of water, air and land pollution through control of uses, treatment of wastes and other appropriate measures.
10. Control the production and use of pesticides and herbicides.
11. Establish a National Scenic Trails Systems, including a Balcones Trail.
12. Preserve the Potomac River.
13. Expedite and expand the Highway Beautification program.
14. Save both money and natural beauty by restricting to non-flowering seasons the non-essential mowing and grading of street and highway shoulders and park open spaces, and by eliminating the use of herbicides in such areas.
15. Pass a Natural Environmental Systems Act.
16. Establish a Redwoods National Park.
17. Increase protection of endangered species through preservation of more habitat and improvement and enforcement of laws to prevent the taking, transporting or selling of such species or products derived therefrom.
18. Implement to the full the Wilderness Act.
19. Impose strong federal controls on strip mining.
20. Regulate the location of lines by utility companies.

PAT RIDGE:



A BIRD IN THE HAND . . . .

Anahuac's novel
Rail Counts

"I can't guarantee you will see any rails today but I do know they're out there," smiled genial Russel Clapper, manager of the sprauling Anahuac National Wildlife Refuge, as our band of birders and photographers readied themselves for the rough ride in a trailer that would last three hours and cover one of the larger expanses of cord grass which blankets the 10,000 acres of this refuge. We knew Russ was correct; on a similar trip last year a fortunate group of birders spotted all six species of rail found in the United States.

Russ Clapper is quite proud of the refuge and I suspect it was he who initiated a system of location of these elusive birds, perhaps only for the purpose of governmental enumeration, more likely to make possible the addition of such rarities and the Yellow and Black Rails to the life-list of many visitors to the Anahuac Refuge. These trips began with the use of a Jeep bearing in front a wide steel bar from which dangled lengths of chain, thereby increasing the chances of flushing small birds. Later a "swamp-buggy" was used with some success and the refuge is hoping to own such a machine some day when funds become available. On this cold and windy February 8, we were to ride in a large four-wheel trailer towed behind a tractor equipped with peculiar metal tracks pulled like giant steel galoshes over the regular rubber tires. Such equipment is essential in navigating the swampy coastal marshes of the refuge. The front and sides of our trailer were equipped with side-boards and helped somewhat to temper the wind but the ride was not expected to be smoooth.

The Anahuac Refuge is well noted for its wintering ducks and geese and its occasional rarities such as Golden Eagles and Whistling Swans. This morning we had visited several duck ponds before embarking on the trailer trip, as a European Widgeon had been reported only the week before. We could not find this bird today but were treated to four beautiful male Cinnamon Teal in among the expected birds. Nutria were in abundance as always but the weather was too chilly for the alligators which can be found on warm days sunning themselves along the banks of ponds. Near some maintenance sheds we were able to examine some specimens of the all too rare Red Wolf which still inhabits Anahuac. Several of these predators have been captured for scientific study and now share roomy pens with their cousins, the coyotes, also found on the refuge.

Our chauffeur and guide, Leo Carrington, pulled away toward the marsh at 10:00 a.m. sharp with eight cold but anticipatory birders. After a brief ride down a refuge road we entered the area in which the rail search would be made. Seaside Sparrows and Short-Eared Owls comprised the bulk of our findings for the first hour or so; Russ had already warned that the wind was really too high for the best "railing". Finally,

however, our patience was rewarded when Gloria Tveten spotted a small bird moving furtively out of our path to the left of the trailer. As Leo stopped the trailer, eight pairs of feet hit the ground running. There was complete agreement as to which clump of grass the bird had run under; the bird was not aware of this, however, as it was spotted several minutes later some 20 feet from where last seen. Again we moved in on it and again it eluded our best efforts by running along some hidden path beneath the tall grass clumps. At long last we had the bird cornered and I was able to part the grass columns and place my hands over it ever so gently. It was the Yellow Rail as we had suspected when first seen. What a small bird in the hand, compared with the appearance in flight!

John Tveton, one of the Houston area's most capable wildlife photographers, was delighted. And why not, after experiencing the usual frustrations of working from a blind, to be able to hold the subject in one hand and photograph with the other. Perhaps it was only John's care and experience, or perhaps his delight with the circumstances; at any rate, never have I seen one bird so well photographed. One roll of film was exhausted, then another, as the rail patiently posed in John's hand. One of our number remarked that this bird had learned a lesson, hopefully, to fly rather than run when next given the opportunity. Demonstrating aptitude for such lessons, our little catch did, indeed, fly some 100 feet when released.

The remainder of the trip was rather anticlimactic; although we did flush two more Yellow Rails, the Black Rail was nowhere in evidence today. Russ told us later that rails winter on the refuge, normally being expected between late October and April. The most productive area for finding them cannot be entered, however, after March 1 because there is too much danger of disturbing the nesting Mottled Duck. He invited any interested birders to take the rail trip when visiting Anahuac, conditions permitting. It should be pointed out here that these cordial and cooperative men on the refuge are Government employees and are here to carry out the aims of the refuge program. As such their time is sometimes at a premium. Russ Clapper believes, however, that part of that program is to educate and enlighten the American public to Nature's beauty and that his Anahuac rail trips are a significant measure of this obligation.

Persons interested in making arrangements for a rail trip should contact Mr. Clapper by telephone on the Double Bayou exchange, (713) CL 2-4146. Weekend trips may be operated without advance notice if an employee is available. Contacts can be made at refuge headquarters. The refuge is located in Chambers County about 10 miles south of Highway Interstate 10 on Highway FM 1985, some 50 miles east of Houston. The entrance is marked by the Texas Highway Department. Good birding!

Conservation Report . . .

(continued from page 9)

DR. NORRIS OFFERS TAS SERVICES TO GOVERNOR

Dr. W. E. Norris, Texas Academy of Sciences president, met with Governor Preston Smith in Austin March 25 and offered the expertise of scientists in solving problems and planning programs for the State of Texas.

Accompanying Dr. Norris were immediate past president, Dr. Robert E. Boyer, and two members of the TAS conservation committee, Dr. Dan Willard and Edward C. Fritz.

Dr. Norris pointed out that in many states the academy of science is officially recognized by the government as an advisory agency. He suggested that as a beginning step in Texas, the Governor feel free to ask TAS to refer experts in whatever discipline is involved, for preliminary voluntary consultation.

Governor Smith expressed his appreciation for this offer.

FEDERAL BUDGET CUTS ENDANGER CONSERVATION PROJECTS

Probably the most serious national conservation problem this year is the withholding of funds from national parks (including our Guadalupe Mountains National Park), forest recreation areas, and other worthy projects. Our victory last year in bolstering the Authorization for the Land and Water Conservation Fund, Redwood National Park, etc., will be of little import unless we obtain the *appropriations and budgeting* to back up the *authorizations.*

Apparently, the only way we can achieve this end is through a mass letter-writing campaign. Please write a letter to your Senator or Congressman in Washington along the following lines:

BACKGROUND

Land and Water Conservation Fund

The Land and Water Conservation Fund Act was adopted in September 1964 as a result of several studies and exhaustive hearings by the Congress. It was found that revenues to the Fund were totally inadequate to meet the need for federal, state, and local public recreation sources, both public and private which might be available for this purpose. Therefore, the Congress in October 1968 adopted the Land and Water Conservation Fund amendment which in effect doubled the authorization, effective July 1, 1968. The annual authorization is for $200 million.

Appropriations may be funded from existing Fund revenue sources (Operation Golden Eagle, sales of surplus Federal real property and the Federal gasoline tax on water vehicles), estimated at $90 million annually, and from the general funds of the Treasury. If annual appropriations are not made at the level of the authorization, then outer continental shelf revenues are automatically tapped to the extent of the difference between existing revenues or appropriations, whichever is greater, and the annual authorization. Of course, actual expenditures from the Fund are limited to amounts appropriated by the Congress, in any event.

The amount that could be appropriated for Fiscal Year 1970 is $310 million. This figure is made up of the $200 million authorized and the $110 million "catch up" from Fiscal Year 1969, as appropriations in FY 1969 were $90 million because no request was made last year for the "catch up" amount which the Amendment permitted. Time did not permit such a request. (The supplemental appropriation for the Redwoods was from the so-called advance authorization of the original Fund Act.)

The $154 million request may be justified on grounds that (1) the request plus the $46 million Bureau of the Budget reserves from previous appropriations equals the annual authorization, and (2) the obligation rate for the Fund is low, thus the larger amount cannot be used. The first argument is patently spurious. The reserve is from funds already appropriated. It should not be counted. The point also ignores the "catch up" amount from FY 1969. The second point is poor, too. All states have a backlog of project applications which could use more than the entire amount which the states ought to get this coming fiscal year. You are also aware of the tremendous need among the Federal agencies for acquisition in authorized areas for park lands, wildlife use, and forest recreation. What we all need is an unfettered chance to show whether the money will be put to productive use.

You may be aware that Congressional action on the appropriation this year may set a precedent. If the full authorized amount is not appropriated, then the same thing could happen in subsequent years. Thus the intent of the Amendment to the Land and Water Conservation Fund might not be realized.

Letter To The Editor:

COMMENTS ON MIMICRY BY THE MOCKINGBIRD

The most recent careful analysis of the song of the Mockingbird seems to be that of Wildenthal (1965). It was based on tape recordings of two birds from the University of Kansas campus in 1962 and two from the Richmond Air Force Base in Florida in 1950. The analysis was made in terms of syllables, syllable patterns and phrases, all of which are defined by the author — and needless to say are not used in the general sense of those terms.

Little difference was found in the duration of syllable patterns per unit and in the patterns of distributions of phrases. But the syllable patterns differed by other means.

The author reviewed the differences between the imitations by the Mockingbird and the songs of the Carolina Wren, the Blue Jay and the Brown Thrasher as given by other workers. Various differences were noted.

POSSIBLE DIFFERENCES BETWEEN MIMICRY IN EASTERN AND WESTERN MOCKINGBIRDS

When I was a boy in Louisiana I had no doubt that the Mockingbird in my home area in Natchitoches, Louisiana imitated the Blue Jay, cats, Redhead Woodpeckers and once, I thought, small boys.

Nevertheless, during twenty-six years in Texas, all but a few days of which were spent west of the 96th meridian, which strikes the coast near the town of Matagorda, I never heard a Mockingbird mimic anything that I could discern. The same thing held for a year's sojourn in California. In brief, I never heard the western Mockingbird mimic anything.

My late friend and colleague, Roy Bedichek, with whom I corresponded at length but never met — although we were both on the staff of the University of Texas for several years at separate locations — stated his conclusions and reasons at length for not believing that Mockingbirds mimicked anything. (Bedichek 1950).

I felt that this was a difference between the eastern and western Mockingbirds, and I suggested this to the editor of a respected ornithological journal. He rejected my short note on the subject and I am glad that he did, even if it was for the wrong reason.

Bedicheck *(op. cit).* has given instances of Mockingbirds in California mimicking other birds, spuriously according to him. Similarly Cruikshank (1968) says that she and her husband detected fourteen bird songs "beautifully mimicked" by a Mocker at Smith's Point, Texas. This is on the east side of Galveston Bay and would be an eastern bird.

A THIRD POINT OF VIEW

The fact of whether a Mockingbird mimics or not is no great biological problem and the world will not come to a shuddering end or proceed on to greater glories whatever the answer. Nevertheless, this question, like many others, is of interest to some people. Therefore, I wish to develop here an argument leading to a third point of view, which has not been advanced before, so far as I know.

Who ever heard a Mockingbird imitate with fidelity the song of the Wood Thrush which sent Audubon into paens of praise? No one, I think, although some gifted musician might notice certain similarities that are lost to the musically untrained or relatively insensitive ear.

Thus, I simply do not hear among this rollicking bedlam of warbling sound the imitations which people with better trained ears have professed to hear over and over. Then who is right? The people who profess not to hear, of course, for the mimicry of imitation is just barely credible.

All this was brought to my mind by the cry of the Chuck-will's Widow in my surrounding woodland for the past several years. This bird yells at night in the spring and early summer, almost all night long and monotonously. I have no objection to the sound and have listened to it many times. Then one day I heard it poorly and ineptly given out in the midst of a Mockingbird song. The imitation was so ludicrous that I burst out laughing. Two other people on the staff of this Laboratory have noticed the same thing during the past four years.

Therefore, I have come to the conclusion that the Mockingbird does attempt to mimic, but he is poor and childlike in this effort and is largely undetected except by people with trained, sensitive ears. This conclusion is a compromise, like so many others in zoological matters, where strong oppositions are taken, but it is the only one that fits the facts. — *Gordon Gunter, Gulf Coast Research Laboratory, Ocean Springs, Mississippi.*

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BULLETIN
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